ARCADIS Design & Consultancy for natural and built assets

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ENVIRONMENT

Subject:
Pre-Design Investigation Data Summary Report (Revised)
Lower Ley Creek Subsite of the Onondaga Lake Superfund Site
Syracuse, New York

Date:
December 10, 2020

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Dear Ms. Sacks:

On behalf of the Respondents to the Administrative Order on Consent for Remedial Design (Respondents), Arcadis of New York, Inc. (Arcadis) thanks the U.S. Environmental Protection Agency (EPA) for the November 23, 2020 emailed comments on the revised Pre-Design Investigation Data Summary Report (PDI Report) for the Lower Ley Creek Subsite. This letter responds to those comments, and provides additional information related to several questions and clarifications. For clarity, the November 23, 2020 comments are restated below and responses are provided in italics.

1. All tables should be either in-line or in a separate section, not a combination of the two.

Respondents: *Standard formatting is to include smaller summary tables in the text for easier reference while larger multi-page tables are attached to the document. In response to EPA's request, all tables will be moved to be attached to the document.*

2. Add a description of SOIL-G to section 3.1. All other excavation areas are described in this report and leaving one out leaves space for confusion.

Respondents: *As the text states, the bullets in Section 3.1 are to summarize changes made to the soil removal limits. In response to EPA's request, the introductory language will be modified to describe that all SOIL areas are listed, and SOIL-G (which did not change) will be added to the list.*

3. It appears that the 0-2 ft and the 2+ ft sampling results were divided in the revised PDI Data Summary Report Appendix B. Please put the data back together into one table as was presented in the Draft PDI Data Summary Report dated May 27, 2020.

Respondents: *The SOILS tables in Appendix B were separated into 0- to 2-foot (Table B-2a) and greater than 2-foot (Table B-2b) depths to facilitate screening and shading, as the different depth intervals for soils use different screening*

criteria. To address EPA's request, Tables B-2a and B-2a will be combined and the footnotes modified to clarify the differences in screening criteria used for the different depth intervals.

4. The comment below has not been addressed in the revised report. Please add text to section 3.1 stating that the "removal depth at SOIL-I-018 was defined based on results at similar elevations from surrounding samples. SOIL-I3 will be remediated to 5-ft and this location will undergo post-removal sampling."

   Discussion history:

   - **EPA Comments July 28, 2020**
     65. Results from SOIL-I-018 show increasing PCB levels at each sampling depth from 0-1 feet to 3-4 feet with a final recorded PCB level of 210 ppm. No deeper sampling was done to determine at what point PCB levels fell below the applicable limit. The proposed excavation depth for this area is 4 feet which appears to be based on an assumption that PCB levels are lower in the next interval (yet unsampled). Are there archived samples in this area? If not, address the plan for this area to be sampled. Any other locations where the deepest sample exceeds SCOs must be resampled to vertically delineate excavation depths.
     Response to Comments August 27, 2020
     Respondents: *The removal depth at SOIL-I-018 was defined based on results at similar elevation at surrounding samples indicating SOIL-I-018 would be less than 10 ppm in the next depth interval. See Figure 14 of Attachment 1. However, to address EPA's comment, an additional foot of depth will be added to SOIL-I3 (to become a 5-foot removal) and this location will be considered for post-removal sampling.*

Respondents: *The comment from July 28, 2020 was addressed in that the removal depth for SOIL-I3 is now 5 feet and the report was revised to indicate "topography was used, along with analytical results" to determine the removal depth. To address EPA's comment, the text of the PDI Report will be revised to more clearly state the "removal depth at SOIL-I-018 was defined based on results at similar elevations from surrounding samples" and that post-excavation sampling will be performed in polygon SOIL-I3.*

5. Sample L-7 does not appear to be within the boundary of the Town of Salina Landfill and has elevated PCB concentrations in the soil. The area surrounding this sample should be further investigated during the RD post-excavation sampling effort. Remove mention of sample L-7 in section 1.1.2 Subsite History.

   Discussion history:

   - **EPA Comments July 28, 2020**
     35. Figure 2b: The L-7 sediment sample appears to be outside of the creek. Please explain.
     Response to Comments August 27, 2020
     Respondents: *L-7 is a historical sample and is located based on information provided. It is possible L-7 was a swale sample. Regardless, was not identified for removal under the ROD for the Lower Ley Creek Subsite. See Figure 6 of Attachment 1.*
     EPA response to RTC September 15, 2020
     35. After the as-built limits of the Town of Salina Landfill remediation have been added to the map (see comment 16), ensure that L-7 is within the limits of the Salina Landfill.

   L-7 is not within the confines of the landfill. Needs to be discussed.

   - **EPA Comments July 28, 2020**
     40. Figure 2b: Sample L-7 does not appear to be addressed by the proposed sediment and soil excavation. Please explain.
     Response to Comments August 27, 2020
     Respondents: *This area and this historical sample isn't considered part of this subsite. See response to EPA Specific Comment 35. See Figure 6 of Attachment 1.*

Respondents: *As noted in Section 1.1.2, historical location L-7 is adjacent* [emphasis added to response] *to the landfill, and was not identified in the ROD as within areas identified for removal, presumably because it is not part of the Lower Ley Creek Subsite and/or has been previously remediated. The text in 1.1.2 is the site history and L-7 should remain a part of that history; however, to address EPA's comment, the need for additional investigation around this location will be further evaluated in the Remedial Design.*

6. SS-19/SB-19 do not appear to be within the boundary of the Town of Salina Landfill as stated. The area surrounding this sample should be further investigated during the RD post-excavation sampling effort. Remove the mention of SS-19/SB-19 in the first bullet on page 3-4.

   Discussion history:

   - **EPA Comments July 28, 2020**
     41. Figure 2b: Samples L-107, SB-20, SS-20, SB-19, and SS-19 have exceedances but are not included in the removal area. Please justify.
     Response to Comments August 27, 2020
     Respondents: See Respondents' response to EPA Specific Comment 16. See Figure 2 of Attachment 1.

   - **EPA Comments July 28, 2020**
     16. 3.1 Revised Soil Remediation Area – pdf p.30 – Soil L – Please justify why the area in L is being reduced in this PDI Report when samples SS-03, SB-04, SS- 04, SB-09, and SS-09 exceed the cleanup criteria.
     Response to Comments August 27, 2020
     Respondents: The Town of Salina Landfill parcel has already been remediated (see Item 3 of PRP Group's October 19, 2018 letter and EPA's acceptance on November 9, 2018). The as-built removal and cover extent of the Town of Salina Landfill is illustrated in green on Figures 2b through 2d of the PDI Report. See Figure 2 of Attachment 1. The boundary will be more distinctly defined in the revised PDI Report.

Respondents: *SS-19/SB-19 is touching the Town of Salina Landfill remediation limits. In addition, SB-19/SS-19 was not identified in the ROD as within areas identified for removal, presumably because it has been previously remediated. However, to address EPA's comment, the need for additional investigation around this location will be further evaluated in the Remedial Design.*

7. The section header (and numbering for) Summary of Previous Investigations and Usable Data seems to have been deleted. Please correct in updated draft. I believe this is section 1.2.

Respondents: *The omission of the header numbering for Summary of Previous Investigations and Usable Data was noted in our October 20, 2020 email to EPA and will be corrected in the revised report.*

8. Bullet at the end of page 2-6: Make the change indicated in red text below.
   In most soil removal areas (SOIL-B, -C, -D, -E, -H, -I [including ~~a~~ deeper sub-areas within SOIL-I], -L [including seven deeper sub-areas within SOIL-L], and -M), borings were generally installed at strategic locations along the perimeter of the areas to sample for PCBs and evaluate the ROD-defined removal limits and/or depths.

Respondents: *The requested change will be made.*

9. Table 2-2 Notes: Make changes indicated in red text below.
   1. Before calculating statistics, duplicate and parent sample results were averaged, and non-detect (ND) values ~~are~~ were represented by half the quantitation limit. Statistics ~~are~~ were rounded to two significant figures.

Respondents: *ND values are, in present tense, represented by half the quantitation limit in the statistics, and the results presented in the table are, in present tense, rounded to two significant figures; past tense is not appropriate. However, to address EPA's comment, the requested change will be made.*

10. Table 2-5. Add units to column headers.
Respondents: *The requested change will be made.*

11. Section 3. Make changes indicated in red text below.

    The new removal limits described in this section are based on the incorporation of existing data, the original removal limits described in the ROD, and the new soil and sediment data described herein, and account for removal of contaminants which exceed SCOs described in the ROD ~~known PCB concentrations~~ within the Subsite ~~with PCB concentrations greater than the PCB cleanup goal~~. A summary of the PDI data used to determine the modifications below is included in Appendix B. Proposed refined removal limits and depths are illustrated on Figures 2-1a through 2-1j and summarized below. The need for post-excavation sampling for areas where removal limits are not fully defined by a sample location with ~~PCB~~ results less than the criteria listed above will be addressed in the Remedial Design (RD).

Respondents: *The paragraph will be revised as follows:*

The new removal limits described in this section are based on ~~the incorporation of existing data,~~ the original removal limits described in the ROD~~,~~ and revision to those limits based on comparison of historical and PDI data to the PCB cleanup goals and/or the SCOs for metals as defined in the RODand ~~the new soil and sediment data described herein, and account for removal of known PCB concentrations within the Subsite with PCB concentrations greater than the PCB cleanup goal~~. A summary of the PDI data used to determine the modifications below is included in Appendix B. Proposed refined removal limits and depths are illustrated on Figures 2-1a through 2-1j and summarized below. The need for post-excavation sampling for areas where removal limits are not fully defined by a sample location with ~~PCB~~ results less than the criteria listed above will be addressed in the Remedial Design (RD).

12. Page 3-1. Soil A is being proposed to be an area of reduction. The first bullet states " the remedy does need to address PCBs (or other constituents) contained in landfilled waste;" I believe this bullet is missing the word "not."

Respondents: *The requested change will be made.*

13. Page 3-2: make changes indicated in red text below.
    - SOIL-B (Figures 2-1h through 2-1i) – Based on delineation samples, the removal area was expanded upstream and downstream from the original ROD-defined removal area. Additionally, multiple sample locations returned results less than the SCOs, resulting in ~~a portion~~ a reduction to the ROD-defied removal area. Topography was used, along with analytical results, to define the limits of the SOIL-B removal area (including to define the limits of the proposed removal extent reduction area associated with SOIL-B).
    - PDI soil sampling results provide supporting information that this area is not part of a former dredge spoil/flood residue area – specifically, samples SOIL-C-032 and SOIL-C-038 through -042 are less than 1 mg/kg for PCBs ~~and indicate this area is not part of the dredge spoil/flood~~

~~residue deposit~~ and the boundary as presented in the ROD should not have been extended to encompass LLCD13;

Respondents: *The requested changes will be made.*

14. Page 3-3, footnote 2. The footnote states that SOIL-D1 was absorbed into SOIL-D, however there is still an area labeled "SOIL-D1" in Figure 2-1d. Please correct.

    An 8-foot removal area, SOIL-D1, was presented in the 2013 Feasibility Study, seemingly associated with sample location LLCD25 (see Figures 2-1d through 2-1f); however, LLCD25 does not exceed the SCO below a depth of 2 feet and it is unclear why an 8-foot removal depth was previously proposed. As a result, the ROD-defined removal extent of SOIL-D1 was absorbed into the 2-foot SOIL-D removal extent.

Respondents: *The area labeled SOIL-D1 on Figure 2-1d associated with sample location LLCD25 is to illustrate the ROD-defined removal boundaries; it is this ROD-defined removal extent of SOIL-D1 that was absorbed into the 2-foot SOIL-D removal extent, as the footnote indicates. A new deeper removal, far removed from sample location LLCD25, is also illustrated on Figure 2-1d and is labeled SOIL-D1 to be consistent with the sequential naming system of the remainder of the PDI soil removal areas (i.e., to mitigate potential future confusion over why SOIL-D1 is "missing", as forthcoming documents will no longer show or discuss the former ROD-defined polygons). However, to address EPA's comment, the footnote will be revised as follows:*

    An 8-foot removal area, SOIL-D1, was presented in the 2013 Feasibility Study, seemingly associated with sample location LLCD25 (see Figures 2-1d through 2-1f); however, LLCD25 does not exceed the SCO below a depth of 2 feet and it is unclear why an 8-foot removal depth was previously proposed. As a result, the ROD-defined removal extent of SOIL-D1 associated with sample location LLCD25 was absorbed into the 2-foot SOIL-D removal extent. Separately, a new SOIL-D1 polygon was defined in the northeast corner of SOIL-D to address the need for removal greater than 2 feet in this area.

15. Page 3-5. The ROD states that the volume would be approximately 73,000 cy of soil and 12,000 cy of soil within the wetlands. Please explain the difference between the soil removal volume described in the ROD and the 82,700 cy stated here. The text states:

    Based on the refined soil removal extents and depths, the soil removal volume has increased from approximately 82,700 cubic yards (cy) of material to approximately 94,400 cy of material. Figures 2-1a through 2-1i include an illustration of the proposed refined removal extents and depths. Table 3-1 summarizes the changes in the proposed removal areas and volumes between the ROD and the estimated removal extent based on the results of the PDI activities described herein.

Respondents: *The ROD specifies "excavation of an estimated 75,000 cy of contaminated soils on the northern and southern banks of the Creek that exceed the SCOs and an estimated 12,000 cy from the wetland area that exceeds the sediment criteria and an estimated 73,000 cy of sediments containing contamination above the sediment criteria," resulting in an estimated total of 87,000 cy of soil and 73,000 cy sediment. To be able to produce an area-specific comparison table for the PDI Data Summary Report, area take-offs were performed based on soil and sediment boundaries approximated and digitized from a figure in the Lower Ley Creek Feasibility Study, dated 2013. We are unable to explain the discrepancy with the ROD as it is unclear how the volumes were calculated for the ROD. However, as noted in Table 3-1, the historical removal polygons seem to have included some overlap between adjacent polygons, which may account for some of the discrepancy. A note will be added in the text to reflect the information in notes in Table 3-1 and*

on the figures that the historical removal polygons seem to have included some overlaps and that ROD-based removal areas are based on digitization from the Lower Ley Creek Feasibility Study figure as the original shape files are not available.

16. page 3-6 first bullet. The figures/maps show two sediment areas in the "HI" range, HI1 and HI. There is no HI2 indicated on the figures. Please update either the text or the figures to make sure the bullet agrees with the visual representation.

Respondents: *The text will be revised to match the numbering on Table 3-2 and Figures 2-1b through 2-1c (i.e., HI and HI1).*

17. Post-excavation sampling will be necessary in the vicinity of SS/SB-17, L-108, and SS/SB-18 because recent sampling has not been completed in the area and the 2 feet recommended for removal is not based on environmental data. Add text explaining that "the area surrounding SS/SB-17, L-108, and SS/SB-18 will undergo post-removal sampling."

    Discussion history:

    - **EPA Comments July 28, 2020**
      39. Figure 2b: Samples SS-17, SB-17, L-108, SS-18, and SB-18 are TSCA-level material not included within the removal area. Please justify or include in the remedy.
    - **Response to Comments August 27, 2020**
      Respondents: *Although a historical soil sample, SS-18/SB-18 is included in the SED-L removal area. In the revised PDI Report a 2-foot removal area will added in the "elbow" of the SED-L removal area to capture SS- 17/SB-17 and L-108. See Figure 7 of Attachment 1.*

Respondents: *As stated in Section 3 of the PDI Data Summary Report (and as referenced in Comment #11), the need for post-excavation sampling will be addressed in the Remedial Design.*

Please let us know if you have any questions.

Sincerely,

Arcadis of New York, Inc.

Mark O. Gravelding
Project Coordinator

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